

BILLY CLAY, DVM, Volume I, 3-24-09

IN THE UNITED STATES DISTRICT COURT FOR THE
NORTHERN DISTRICT OF OKLAHOMA

W. A. DREW EDMONDSON, in his)
capacity as ATTORNEY GENERAL)
OF THE STATE OF OKLAHOMA and)
OKLAHOMA SECRETARY OF THE)
ENVIRONMENT C. MILES TOLBERT,)
in his capacity as the)
TRUSTEE FOR NATURAL RESOURCES)
FOR THE STATE OF OKLAHOMA,)

Plaintiff,)

vs.)

TYSON FOODS, INC., et al,)

Defendants.)

4:05-CV-00329-TCK-SAJ

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VOLUME I OF THE VIDEOTAPED
DEPOSITION OF BILLY CLAY, PhD, produced as a
witness on behalf of the Plaintiff in the above
styled and numbered cause, taken on the 24th day of
March, 2009, in the City of Tulsa, County of Tulsa,
State of Oklahoma, before me, Lisa A. Steinmeyer, a
Certified Shorthand Reporter, duly certified under
and by virtue of the laws of the State of Oklahoma.

BILLY CLAY, DVM, Volume I, 3-24-09

1 A I'm trying to recall whether it was past 3.5
2 or not. I can't remember. Seems to me it was
3 closer to 3.

4 Q You would agree, sir, that in making your
5 report and opinions contained in that report, you 11:58AM
6 did not use the actual poultry production numbers
7 that are provided by the integrators?

8 A Let me make sure I understand your question.
9 I think you asked me did I use the production
10 numbers provided by the integrators, and the answer 11:58AM
11 was that I used this in a comparative basis because
12 I made estimates, as well as other people who have
13 made estimates, and I used it as part of the
14 comparator.

15 Q The primarily -- the primary tool that you 11:59AM
16 relied on in establishing poultry production numbers
17 was the 2002 Ag Census, was it not?

18 A Yes, that's correct.

19 Q Do you agree that that Ag Census does not
20 provide bird production by integrators? 11:59AM

21 A Yes, I do.

22 Q And do you agree that it provides the census
23 information by either a state level, county level or
24 a ZIP Code?

25 A Yes. 11:59AM

BILLY CLAY, DVM, Volume I, 3-24-09

1 Q It does not provide census information based
2 upon watersheds, does it?
3 A No.
4 Q Do you agree that -- it was necessary -- well,
5 let me ask you this way: Who made the assumptions 11:59AM
6 and calculations for the bird numbers; was that Mr.
7 Jobes or was that you?
8 A Mr. Jobes made the calculations and I made the
9 assumptions.
10 Q Okay. Had you ever performed the task of 12:00PM
11 calculating bird production in the manner that you
12 did it in this case before?
13 A Not exactly in this manner, no.
14 Q Okay. Tell me what other manner you've
15 employed in calculating bird production numbers. 12:00PM
16 A Just -- just using census data and tabulating.
17 Q And what -- was there a confined area -- a
18 defined area that you were requested to make those
19 calculations for?
20 A Well, the Illinois River watershed, this case. 12:00PM
21 Q I'm sorry. I misspoke then. I misunderstood
22 what you said. Let me ask it this way: Have you,
23 other than in this case, prepared calculations on
24 the production of poultry for any other location
25 than the IRW? 12:00PM

BILLY CLAY, DVM, Volume I, 3-24-09

1 A Yes, I do know that.

2 Q All right, and so even though the 2002 data
3 was available from the integrators, tell the court
4 why you didn't use that but instead used the Ag
5 Census. 12:05PM

6 A I answered that for you earlier, but I'll
7 answer it again. I said I used it as comparator
8 data, along with all of the other people who had
9 made estimates that I had available to me, and it
10 was comparator data, just like the Smith, Alexander 12:06PM
11 data was comparator data. So that was the reason.
12 I was using a format that I had chosen -- we had
13 chosen, and I was comparing it to others.

14 Q Okay, and, again, though, the principal method
15 in which you made your calculation relied on 12:06PM
16 analyzing ZIP Codes in the Illinois River watershed
17 and the Ag Census that is reported pursuant to those
18 ZIP Codes; is that correct?

19 A That is correct.

20 Q Let me just -- so we can identify it on the 12:06PM
21 Record, let me hand you Exhibit 17. I'll represent
22 to you that the first page is a summary page along
23 with the second page, but I've prepared basically a
24 compilation of responses provided by the defendants
25 in this case. 12:07PM

BILLY CLAY, DVM, Volume II, 3-25-09

1 that you said was your source for the size of birds?

2 A Yes.

3 Q All right. That doesn't say 5.13 on it,
4 though, does it?

5 A Well, that was just from recall.

09:02AM

6 Q Now, in order to get to the number of birds
7 that you calculated are in the IRW, you relied on
8 the census through the ZIP Code dataset; is that
9 correct?

10 A Yes.

09:03AM

11 Q And you downloaded that dataset or did Mr. --
12 Dr. Jobes download that dataset?

13 A Dr. Jobes did.

14 Q All right, and he made the calculations from
15 that -- let me ask it this way: Who made the
16 calculations to assign what percentage of each ZIP
17 Code would be in the IRW?

09:03AM

18 A He did that.

19 Q What assumptions did he make in the
20 allocation, if you will, of the birds within the ZIP
21 Code?

09:03AM

22 A Well, they're reported in the ZIP Code.

23 Q I'm sorry. I didn't make my question very
24 clear. In talking about those that lie in and
25 outside of the boundaries of the IRW --

09:04AM

BILLY CLAY, DVM, Volume II, 3-25-09

1	A	Oh.	
2	Q	-- what assumptions and allocations did he	
3		make to calculate the birds?	
4	A	When we ordered the ZIP Code data, they sent	
5		it in hard copy form, as well as by E-mail.	09:04AM
6		told us what percentage of the ZIP Code was in the	
7		county of each of the ZIP Codes that were involved.	
8		We then did an overlay over the watershed and	
9		determined what percentage of the ZIP Code was in	
10		the watershed.	09:04AM
11	Q	And how was that overlay done?	
12	A	It was done with a computer.	
13	Q	And who did that?	
14	A	He did that.	
15	Q	And do you know what he used in order to make	09:04AM
16		the overlay?	
17	A	I don't remember.	
18	Q	Did you see him do the work?	
19	A	I saw it after he had it in place.	
20	Q	Do you agree that the census provides some	09:04AM
21		confidentiality in the reporting of data that it	
22		collects for the farmers?	
23	A	Yes, I do.	
24	Q	Let me hand you what is marked as Exhibit No.	
25	9.	Have you seen that before on the Ag Census	09:05AM

BILLY CLAY, DVM, Volume II, 3-25-09

1 website?

2 A Yes.

3 Q And it has a notation there where it shows an
4 asterisk under the particular ZIP Code that was
5 pulled for this example.

09:05AM

6 A Uh-huh, yes.

7 Q Read to the court and jury what the footnote
8 describes the purpose of the asterisk in the dataset
9 to be.

10 A It says, data withheld for categories with one
11 to four farms. Farm counts in these ZIP Codes are
12 included in the state total category.

09:06AM

13 Q All right.

14 A And when they report it, they use a D instead
15 of an asterisk.

09:06AM

16 Q And did -- what adjustment, if any, did Dr.
17 Jobes make in the calculations for data that was not
18 reported?

19 A He didn't include them if they didn't report
20 it.

09:06AM

21 Q Okay. Did Dr. Jobes do any calculation for
22 margin of error estimates for the work he performed
23 in making these calculations?

24 A Restate that again, sir.

25 Q Did you or Dr. Jobes make any calculation to

09:06AM

BILLY CLAY, DVM, Volume II, 3-25-09

1	determine a margin of error for the estimates made	
2	from the calculations for the number of poultry	
3	being produced?	
4	A No.	
5	Q Let me hand you what's Exhibit 38 and ask you	09:07AM
6	if you recall seeing that document.	
7	A Yes. It looks familiar.	
8	Q That's, in fact, Table BA from your	
9	appendices, is it not?	
10	A Yes.	09:07AM
11	Q All right. Do you see where circles have been	
12	entered on the lower portion of this document?	
13	A Yes.	
14	Q And do you see where they have circled some	
15	asterisks that appear there?	09:07AM
16	A Yes.	
17	Q And do you agree with me, sir, that based on	
18	the prior exhibit, this is ZIP Codes listed that	
19	have no data based upon the fact there's one to four	
20	farms in that ZIP Code?	09:08AM
21	A I am.	
22	Q Is that your understanding of why that's	
23	there?	
24	A It is.	
25	Q All right, and you're saying that Dr. Jobes	09:08AM

BILLY CLAY, DVM, Volume II, 3-25-09

1 did not make any adjustment for those; correct?

2 A No. We were aware that there was an under
3 estimate on turkeys.

4 Q All right, and did you contact the integrator
5 that produces turkeys in this case to determine how 09:08AM
6 many turkeys they produce in the IRW?

7 A We didn't.

8 Q All right. Looking at -- I believe there's a
9 ZIP Code -- at the very last page the ZIP Code in
10 Delaware County is 74964. It would be the very last 09:08AM
11 page, almost to the middle of the --

12 A Yes.

13 Q Do you see where the two circles are shown
14 there, one for a broiler and one for turkeys sold?

15 A I do, I do. 09:08AM

16 Q So that would indicate no disclosure or no
17 data provided for broilers or turkeys in that ZIP
18 Code; correct?

19 A That's correct, because there was just I think
20 two. I think there were two. 09:09AM

21 Q Did -- what -- you say you think there were
22 two. Two what?

23 A Two farms.

24 Q And did you do anything to validate or confirm
25 what you thought was true or not true? 09:09AM

BILLY CLAY, DVM, Volume II, 3-25-09

1 A No. We knew that there would be some under
2 estimate in a few places, but we were looking at a
3 gross estimate to begin with.

4 Q If you could find Exhibit 17 and we'll just
5 look at that real quick and leave that handy I 09:09AM
6 guess.

7 A 17?

8 Q Yes, sir. That's going to be the discovery
9 materials showing the bird numbers with the summary
10 page on the front. 09:09AM

11 A I hope I didn't go past it again.

12 Q It's a rather thick one.

13 A Okay. I see it.

14 Q Look under the column of 2002, and can you
15 tell me which integrator produces turkeys in the 09:10AM
16 watershed?

17 A Well, Cargill produces some turkeys.

18 Q Okay, and what is the number of birds produced
19 in 2002 by Cargill?

20 A They say 2.8 million. 09:10AM

21 Q And do you recall how many birds, turkeys you
22 used in your calculations for turkeys being
23 produced?

24 A Yes.

25 Q What was it? 09:10AM

BILLY CLAY, DVM, Volume II, 3-25-09

1 cattles that are listed here would include heifers

2 whether they're replacements or not?

3 A Yes, but if you'll look closely at our

4 calculations, what we did in determining or using

5 those -- that 1.3, we didn't put the calves in

09:13AM

6 there. We put the heifers in there but no calves

7 were included. Now, what you have in other cattle,

8 although it's not spelled out here, is that there

9 are a lot of cattle that are bought and sold in the

10 watershed. There are also a lot of cattle -- calves

09:13AM

11 that are carried over from one year to the next to

12 grow them.

13 Q And aren't those all intended to be picked up

14 in the census by the definition of the beef cows and

15 other cattles?

09:14AM

16 A And that's what the producer does. They just

17 count all of those cattle, add them up and put them

18 in there.

19 Q All right. So you would have them all in

20 those counts, would you not?

09:14AM

21 A That's right. They'll all be in there in

22 other cattle.

23 Q And notwithstanding that, you still added more

24 to it in order to do your numbers, didn't you?

25 A Did not add more to it.

09:14AM

BILLY CLAY, DVM, Volume II, 3-25-09

1	Q	Well, you used a 1.3 versus a 1, didn't you.	
2		Doesn't that additional .3 include part of a bull,	
3		additional heifers that are being --	
4	A	1-25th of a bull.	
5	Q	Okay, and it includes replacement heifers,	09:14AM
6		doesn't it?	
7	A	Heifers but no calves.	
8	Q	All right, but all the heifers are supposed to	
9		be accounted for by this document; don't you agree?	
10	A	As far as the production of manure and/or its	09:14AM
11		constituents, the difference between the heifers	
12		that would be included in the 1.3 and the calves is	
13		a wash because the calves, there are about 81,000 of	
14		them or could be 81,000 of them, which were not	
15		accounted when we were doing that, and the heifers	09:14AM
16		are two heifers per eight cows.	
17	Q	Where did you get your calf number that you	
18		just referred to?	
19	A	Calf crop.	
20	Q	And where did -- calf crop?	09:15AM
21	A	About 80 percent calf crop.	
22	Q	And that's an estimate on your part; correct?	
23	A	That's an estimate.	
24	Q	It's not coming from the Ag Census?	
25	A	No.	09:15AM

BILLY CLAY, DVM, Volume II, 3-25-09

1 no calves included.

2 Q How do you exclude the calves when they're
3 part of a number that has a grouping of various beef
4 animals in one number?

5 A We excluded the calves because the calf crop 09:27AM
6 is based and the census is based on January, and
7 January is after the producer has sold the bulk of
8 their calf crop. They sell them in the fall, and
9 they're born in the early spring, late winter to
10 early spring, and they keep them on the property 09:27AM
11 about eight months and then they sell them, and
12 that's the way they make their money.

13 Q And so your testimony then is that based upon
14 that process, these calves are never counted in the
15 Ag Census? 09:27AM

16 A Those calves would not be counted in the Ag
17 Census, the ones that are sold. Now, if you go to
18 cattle sold, they may appear there, but we didn't
19 use that number.

20 Q Okay, all right. So the census reflects them 09:27AM
21 perhaps under a different category is what you're
22 saying?

23 A Correct.

24 Q And you ignored that category?

25 A We weren't using it in this case because we 09:28AM

BILLY CLAY, DVM, Volume II, 3-25-09

1 wanted to include the heifers as a unit as a part of
2 the cow.
3 Q And why wouldn't you just go ahead and pick up
4 the calves from the calves sold?
5 A We could have done it that way. We didn't 09:28AM
6 choose to do it that way.
7 Q Did you make that calculation?
8 A I don't believe we did.
9 Q So you don't know whether it's a greater or
10 lesser amount if you had done it that way, do you? 09:28AM
11 A Well, you take 800,000 calves versus a
12 fraction of number of heifers. You know, it's a
13 pretty good trade-off.
14 Q You didn't do the calculation to determine
15 what their resale would be? 09:28AM
16 A Oh, I think we did it on just a hand rough
17 calculation. Dr. Jobes did.
18 Q Looking at the -- the line item below this one
19 where it says replacement heifers, six months at 600
20 pounds? 09:28AM
21 A Yes, yes, yes.
22 Q Okay. Is that a weaned weight?
23 A Yes, approximately.
24 Q Okay. What is the type of breed of cattle you
25 are using to calculate these weights? 09:29AM

BILLY CLAY, DVM, Volume II, 3-25-09

1	A	These are mixed breeds.	
2	Q	And those are?	
3	A	Well, there are multiple breeds in the	
4		watershed, both Arkansas and Oklahoma. The	
5		preferred type of cattle is cross bred cattle	09:29AM
6		because of the heterosis that's involved there,	
7		meaning hybrid vigor that's involved there. So	
8		you're going to have a lot of English breed base	
9		cattle that are also crossed on to Continental	
10		cattle.	09:29AM
11	Q	Looking at I think it's Table AA, it shows	
12		here that you've used inventory numbers for the	
13		animals on this page. Tell us why you used	
14		inventory numbers when many or a lot of those are	
15		sold basically in a six-month period.	09:30AM
16	A	Exactly where are you now?	
17	Q	I'm on Table AA where you're listing at the	
18		top beef cow down through horses and ponies.	
19	A	Oh, okay. I'm sorry.	
20	Q	And you're using inventory number; correct?	09:31AM
21	A	Depending on the animal and the focus, yes.	
22	Q	And are not some of those sold during the	
23		year, too?	
24	A	Yeah, some could be sold during the year.	
25	Q	Did you make any calculation to reflect the	09:31AM

BILLY CLAY, DVM, Volume II, 3-25-09

1 sale of some of those?

2 A I don't think we did, but there -- there's not
3 very many sold on a relative basis because they're
4 trying to maintain those -- those base herds that's
5 involved. In other words, when you replace the
6 animal, you replace it in the case of cattle with
7 the heifers.

09:31AM

8 Q Look quickly at I guess C1, the large -- and
9 under the heading where you talk about the broilers,
10 you show that you use the 2.25 for the weight;
11 correct?

09:32AM

12 A Yes.

13 Q And five turns at 49 days?

14 A Yes.

15 Q Why did you use five turns at 49 days?

09:32AM

16 A We saw that used routinely in State documents.

17 Q What State documents did you look at that told
18 you that?

19 A Well, the basin management document was one of
20 them.

09:32AM

21 Q Anything else?

22 A Well, there were several of them. I just
23 can't remember all of them.

24 Q Okay. Have you heard that it's not uncommon
25 to turn flocks as many as six times?

09:32AM